

## Developmental Milestones (see Developmental Chart)

### 6 Weeks old

---

---

#### Gross Motor

**1. Head Control (0-3 months)**

**TEST:** Pull baby to sitting position.

**Pass:** Baby should be able to hold head steady by six weeks.

**Note:** If baby cannot hold head by six weeks, it may indicate hypotonia, cerebral disorder, or other factors such as sedation.

**2. Moro response**

**TEST:** Support head and shoulders on examiner's hands at about 15 cm from table and suddenly allow baby's head to drop back slightly.

**Pass:** Extension of arms followed by adduction toward chest.

**Note:** If response is poor or asymmetrical, note which arm does not move properly. Failure could be due to weakness, fracture, dislocation. Response should disappear by six months.

**3. Ventral Suspension**

**TEST:** Hold baby in ventral suspension.

**Pass:** Head is in line or higher than the body and the hips are semi-extended.

**Note:** Same as head control.

**4. Prone Position**

**TEST:** Place the baby's face down on a flat surface.

**Pass:** He lifts his head at least momentarily, and often as far as 45 degrees from the surface. All babies should be able to lift head a little by six weeks.

**Note:** Failure has same significance as head control.

#### Fine Motor and Vision

**1. Stares**

**TEST:** Look at baby's face. Also ask the mother, "Does baby watch you while you are feeding?"

**Pass:** He stares.

**Note:** No response may indicate poor vision or blindness, especially if associated with wandering eye movement.

**2. Follows horizontally to 90 degrees**

**TEST:** Put child on back with his head turned to one side. Hold red woolen ball about 25cm in front of child's face. Gently shake it to get his attention, and then move it slowly from one side to the other, crossing his face.

**Pass:** The eyes alone, or the head and eyes together, cross the midline and travel through at least 90 degrees in following the woolen ball.

**Note:** If the baby does not follow the ball the test should be repeated at least three times with a few minutes' interval between each testing. If he still does not follow the ball, he may have poor vision.

**3. Rattle or bell**

**TEST:** Hold rattle or bell so child cannot see it. Sound quietly for 3-5 seconds at 15 cm at ear level with five second pauses. Increase volume if no response.

**Pass:** Baby turn toward sound, or widens eye with sound.

**Note:** If baby does not respond, try again after a short while. If still no response, repeat in two weeks. Ask parent if they have noticed baby responding to sound.

**4. Startle Response**

**TEST:** Clap at ear level at 30 cm or ask parents if they have noticed baby startle to loud sound such as phone or doorbell.

**Pass:** Child stiffens, blinks, screws eyes, extends limbs and cries.

**Note:** If the child does not pass Rattle or Startle he should be referred for a pediatric audiological assessment.

## Social Behavior and Play

### 1. Smiling

**TEST:** Smile at child. Do not stimulate by touch or sound. Ask parents if child smiles.

**Pass:** Child smiles.

**Note:** 90% of babies will smile by six weeks. Failure may represent developmental delay.

### 2. Turns to regard observer's face

**TEST:** Put child on back. Bring your face within 30 cm of child and watch to see if he turns toward you. Ask parents if child turns to look at them.

**Pass:** Child looks at examiner, or parents say baby does.

**Note:** Failure has same significance as smiles.

---

---

## 6-8 Months Old

### Gross Motor

#### 1. Bears Weight on legs

**TEST:** Hold child upright in vertical suspension and rest feet on table. Relax support but do not release.

**Pass:** Child supports weight on his legs.

**Note:** If he does not bear weight, this may represent weakness, hypotonia or hypertonia. Scissoring of legs (crossing the legs) will be unusual at this age, but if present may be due to spasticity. Floppy infants also fail-but there are many causes for floppiness, including many benign causes. Failure may be due to a developmental delay, cerebral palsy or social deprivation. Check for muscle tone and also mobility of ankles, knees, hips and ankles. In hypotonia, excessive joint movement (hyperextensibility) is present and the limbs feel floppy. Children with hypotonia and hyperextensible joints do not bear weight but adopt a 'sitting on air' position. These children later shuffle or hitch their bottom; they do not crawl. They walk late, at 23-30 months of age, and subsequently they will be normal in gross motor development and in intelligence, but mild incoordination due to mild hypotonia may persist.

#### 2. Downward Parachute Response

**TEST:** Hold child upright in vertical suspension, about 30 cm from table and rapidly lower him to land on surface.

**Pass:** Lower limbs extend and abduct as baby lands.

**Note:** This response is present in some babies at four months and in almost all infants at six months. An asymmetrical parachute response may occur in weakness or spasticity of a limb and if a hip is dislocated. Failure has same significance as "Bears weight on legs".

#### 3. Sits with Support

**TEST:** Hold child in a sitting position on a table and see how well he can hold head steady and whether his back is straight.

**Pass:** Sits well with support.

**Note:** Failure has same significance as "Bears weight on legs".

#### 4. Forward Parachute Response

**TEST:** Hold infant in prone suspension and suddenly tilt towards examination table.

**Pass:** Upper limbs and fingers will abduct and extend.

**Note:** This is a saving, propping or protective reaction, which is present by 9-12 months. If it is not present by 12 months it may represent developmental delay.

#### 5. Crawls

**TEST:** See if baby can crawl or ask parents.

**Pass:** Baby can crawl.

**Note:** The baby begins to crawl from six months; 90% will crawl by nine months. However, some babies do not crawl, but move by shuffling on the buttocks or by rolling or creeping. These babies walk late (at 22-24 months); they are normal, but show a deviation of normal motor development. Thus, not crawling is not of major clinical significance, provided all other developmental milestones are normal.

## **Fine Motor and Vision**

### **1. Palmar grasp**

**TEST:** Child sits on parents lap so that he can easily reach out. Place a toy at easy reach.

**Pass:** Child grasps with palm.

**Note:** If child does not grasp by 6 months, this indicates developmental delay.

### **2. Transfers**

**TEST:** Give toy to child and observe whether or not he passes it from hand to hand or puts in mouth.

**Pass:** Child transfers.

**Note:** The average age for passing this test is six months, by eight months 90% will pass.

### **3. Follows Fallen Toys**

**TEST:** The child sits on parents lap. Hold a bright toy or a red ball in front of him. While he is looking at the object, drop it so it falls. Do not move hand.

**Pass:** Child looks down to see object.

**Note:** Failure to watch falling object has same significance as in "Fixes on small objects".

### **4. Fixes on small objects**

**TEST:** Drop raisin, penny or other small object on table with good contrast.

**Pass:** Child looks at raisin, if he fails to look point it out to him.

**Note:** Failure to fix his eyes on object may represent visual inattention or poor eyesight.

## **Hearing and Speech**

### **1. Vocalizes**

**TEST:** Observe if baby babbles.

**Pass:** Babbling and cooing are heard.

**Note:** Vocalization begins within the first month. At first, monosyllabic babbles such as cooing sounds (ah, muh, goo, ba, da, ka) develop, then polysyllables (dada, mum-mum, ga-ga). At about six months 50% have this; by nine months, 90%. If there is no vocalization this may suggest a hearing deficit; it may also be due to an overall developmental delay.

### **2. Laughs**

**TEST:** Observe for loud laughs or high-pitched squeals.

**Pass:** Laughs and squeals are heard.

**Note:** If he has not started to laugh, it has same significance as "Vocalizes".

### **3. Responds to Name**

**TEST:** With child on parents lap, stand beside and behind whisper child's name several times from about 20 cm. Repeat twice more if child doesn't respond. Also ask parents if child recognizes name.

**Pass:** Baby turns to the direction of voice; also pass if parent give clear history.

**Note:** If he doesn't turn to localize sound or if there is no history may indicate deafness or be part of global delays as in "Vocalizes".

### **4. Distraction Hearing**

**TEST:** Child in parents lap. Get his attention by moving an attractive soundless toy just out of reach. All adults must be quiet. Then put toy behind back. Second tester then makes sound at ear level. Use all of following:

- rattle at 1 foot from ear.
- cup and spoon 3 feet from ear.
- voice 3 feet from ear.

**Pass:** Child turns head instantly to sound.

**Note:** If child fails, otitis media should be excluded. If excluded, refer to audiologist.